

ACES 2014 Thursday Lunch Town Hall
December 11, 2014 | 12:15-1:20pm | Grand Ballroom Salons D-E

Title: *Applying an Ecosystem Services Framework to Climate Change Adaptation*

Description:

Climate and land use change will significantly impact ecosystem services and natural capital. These impacts, and the consequences from potential human responses, must be explicitly considered in planning and adaptation decision making. An ecosystem services approach provides an analytical framework for considering the biophysical consequences from climate change and adaptation scenarios and their impacts on monetary and non-monetary values to humans.

This Town Hall session will provide an opportunity to discuss recent efforts to advance the use of an ecosystem services approach to inform adaptation decisions. The Town Hall is designed for scientists, managers, practitioners, and decision makers with interest in climate and land use change and how an ecosystem services approach can be applied to inform critical national and local decisions.

This Town Hall builds upon and expands previous workshops and meetings which started at the National Council for Science and the Environment (NCSE) Conference on Building Climate Solutions in January 2014. The symposium and workshop held at the NCSE Conference identified key issues to be addressed in three areas: (1) the policy context; (2) biophysical and socioeconomic metrics; and (3) monetary and non-monetary valuation. A synthesis describing key issues that need to be considered in developing a strategy for incorporating ecosystem services into adaptation decision making will be discussed at the Town Hall, as well as the outcomes from the working groups associated with each of these topics. Policy topics to be discussed include a) the role of the federal government, b) coordinating a common set of climate change scenarios across federal agencies, and c) whether a common ecosystem services framework across agencies is desired, needed, and possible? Topics related to metrics include a) what baseline metrics are available on the current status of ecosystem services that will be severely impacted by climate change, b) what additional baseline data needs to be generated, and c) what processes and methods do we use so that biophysical metrics resulting from climate change can be applied to ecosystem service valuation. Finally, the valuation topic will address such questions as “what new or emerging methods and tools that have unusual promise in valuing changes in ecosystem services resulting from climate change and adaptation decisions,” “how can uncertainty be incorporated into estimates,” “how can we build upon the methods and results from the reinsurance industry, and can methods such as benefits transfer be used effectively and at a reasonable cost.”

Invited speakers include:

- *Dr. Greg Arthaud, US Forest Service*
- *Dr. David Ervin, Portland State University*
- *Olivia Ferriter, Deputy Director, Office of Policy Analysis, Department of the Interior*
- *Dr. Mellissa Kenny, University of Maryland*
- *Dr. Carl Shapiro, US Geological Survey (Moderator)*

Organizers:

Greg Arthaud, US Forest Service garthaud@fs.fed.gov

Frank Casey, USGS, ccasey@usgs.gov

Carl Shapiro cshapiro@usgs.gov

Organizer Biographies:

Greg Arthaud is the Forest Service National Leader for Ecosystem Services Research. Prior to joining the Forest Service, Dr. Arthaud was a faculty member at the University of Georgia and Yale University, where he taught and developed research in the areas of forest finance, forest management, integrated resource planning, forest policy, and spatial analysis. He helped found A Community on Ecosystem Services (ACES). Dr. Arthaud serves as the Co-Chair of the federal interagency (CENRS) Ecosystem Services Working Group. He received his B.S. and Ph.D. in Forest Resources Management from the University of Minnesota, his M.S. from Virginia Tech in Forest Economics and studied as a Fulbright-Hayes Scholar at Freiburg University (Germany).

Frank Casey is an agricultural and natural resources economist and serves as the Ecosystem Services Theme Lead for the Science and Decisions Center at the US Geological Survey. His responsibilities include incorporation of ecosystem services and their valuation (including market mechanisms) in adaptive management research and planning for resource conservation on both public and private lands. Dr. Casey directs seminar series on economic valuation of ecosystem services, participates in several governmental and external advisory committees related to ecosystem services measurement and valuation, and is active in applying ecosystem services concepts and valuation in the context climate change and the conservation of at-risk species. He has a PhD in Food and Resource Economics from the University of Florida and an MS in Agricultural Economics from Cornell University.

Carl Shapiro is the Director of the Science and Decisions Center (SDC) at the U.S. Geological Survey and is Senior Economist, Energy and Minerals, and Environmental Health. In this capacity, Dr. Shapiro leads SDC's efforts to advance the use of science in natural resource management decision making. Between 1987 and 2005, he was the Principal Economist in the USGS Office of the Director, and led and participated in economic and multidisciplinary studies on public policy issues, natural resources, and hazards. He helped initiate ACES (A Community on Ecosystem Services) and served as Conference Chair for the first two ACES conferences in 2008 and 2010. Dr. Shapiro is on the adjunct faculty at the School of Public Affairs at American University and has received the University Outstanding Teaching Award. Dr. Shapiro has a B.A. in Government from the College of William and Mary and received an M.A. and a Ph.D. in economics from George Mason University.